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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/302,941      | 04/30/1999  | JAMES T. VELIGDAN    | BSA99-06            | 7667             |

7066 7590 09/26/2002

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EXAMINER

KIM, AHSHIK

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2876     |              |

DATE MAILED: 09/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application N .</b> | <b>Applicant(s)</b> |
|                              | 09/302,941             | VELLIGDAN, JAMES T. |
|                              | Examiner<br>Ahshik Kim | Art Unit<br>2876    |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on Amendment (04/29/02) & CPA (01/16/02).
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 3 and 13-23 is/are allowed.
- 6) Claim(s) 1,2 and 4-12 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
 

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                           | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 . | 6) <input type="checkbox"/> Other: _____ .                                   |

**DETAILED ACTION**

***Continued Prosecution Application***

1. The request filed on 16 January 2002 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/302,941 is acceptable and a CPA has been established. An action on the CPA follows. As further requested on the Continued Prosecution Application, the Office Action was suspended for three months.

***Amendment***

- 10 2. Receipt is acknowledged of the amendment filed 29 April 2002. Claims 1-23 remain for examination.

***Drawings***

- 15 3. This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

***Information Disclosure Statement***

- 20 4. As requested by the applicant, incorrect patent number to Koenik et al. (US 5,401,141) on initially submitted PTO-1449 has been corrected, and a copy of the corrected form is enclosed in this Office Action.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

5                 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10

5.         Claims 1, 2, and 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eastman (US 5,786585) in view of Agabra et al, (US 6,126,075).

Re claim 1 and 7, Eastman teaches a barcode reader 10 with a projector (col. 3, lines 42 – 46), light sensor (col. 1, lines 57 – 61) and a decoder (col. 5, lines 64 – 67).

15                 Eastman fails to specifically teach or fairly suggest of using wave-guides in the barcode.

Agabra teaches a barcode reader with slanted wave-guides 306 (col. 15, lines 25 – 38) as recited in claim 7.

20                 In view of Agabra's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ well-known method of wave-guide to the teachings of Eastman in order to efficiently transmit light from the source to remote locations and return light from remote locations to the sensors. Further, wave-guide helps preventing light from refracting, and thus light in low intensity will still register via wave-guide, and thus obvious expedient.

25         Re claim 2, Eastman teaches a barcode reader generating various pattern of scanning beams (col. 13, lines 12 – 21).

Re claims 5, 6, 8 and 9, Eastman teaches a light coupler which is a Fresnel refractive lens (col. 3, line 62 – col. 4, line 1). Although Eastman does not specifically point out the configuration or dimension of the scanner parts, it is obvious that various lenses, gratings, reflectors are integrated to make barcode functional (col. 4, lines 7 – 14).

5 Re claims 10–12, Eastman teaches an array of photodiode (col. 3, line 59 – col. 4, line 1). As mentioned above, a particular arrangement of these parts are a design variation.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eastman <sup>as</sup> modified by Agabra as applied to claim 1 above, and further in view of Detwiler (US 6,045,046). The  
10 teachings of Eastman as modified by Agabra have been discussed above.

Eastman/Agabra fails to specifically teach or fairly suggest of a rotary spinner and cooperating pattern mirrors.

Detwiler teaches a barcode scanner with rotary spinner and cooperating pattern mirrors (col. 2, lines 45 – 57).

15 In view of Detwiler's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate well-known device of spinner and mirrors to the teachings of Eastman/Agabra in order to create multi-directional scanning beams and improve scanning method. Further, users will be saved from the effort of aligning barcode reader to a particular direction, and thus an obvious expedient.

***Response to Arguments***

7. Although the reference to Agbra et al. does not provide detailed structure of the waveguide used in the scanner, a conventional wave-guide is constructed by cladding plurality of thin fiber optic plates, and the resulting shape of the wave-guide is some variation of right triangles (see cited references for further details on wave-guide structure). In the instant application, as shown in figure 2, a wave-guide 16 is similarly constructed: cladding a collection of thinly sliced individual wave-guides (see pages 5 and 6), not plurality of 16 stacked together in parallel manner. Reference to Agabra discloses plurality of wave-guides 236 and 240 (col. 13, 62+), and two wave-guides may be arranged to show V-shape. However, in view of teachings disclosed in the cited references above, it is Examiner's position that each wave-guides disclosed in Agabra 236 and 240 are a collection of thinly cut wave-guide resembling the figure 2 in instant application. Accordingly, the reference to Agabra et al. still reads on the amended claim 1 further disclosing "an optical panel including a plurality of stacked parallel optical wave-guides .....".

15

***Allowable Subject Matter***

8. Claims 3 and 13-23 are allowed.

9. The following is an examiner's statement of reasons for the indication of allowable subject matter: The claims are directed at a barcode reader that incorporates video display projector projecting both scan beam and video beam in a manner not taught or suggested in the prior art of record, and set forth in the claim 3 and 13 – 23.

***Conclusion***

I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kamatani (US 5,577,148); Schmutz et al. (US 5,633,487) disclose optical scanners utilizing wave-guides and related methods.

II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Ahshik Kim* whose telephone number is (703)305-5203 . The examiner can normally be reached between the hours of 6:00AM to 3:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax number directly to the Examiner is (703) 746-4782. The fax phone number for this Group is (703)308-7722, (703)308-7724, or (703)308-7382.

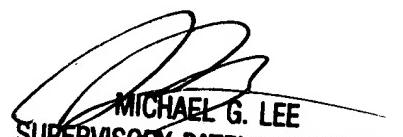
Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [ahshik.kim@uspto.gov].

*All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

25 

Ahshik Kim  
Patent Examiner  
Art Unit 2876  
September 13, 2002

  
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